IN THE CLAIMS:

1. (Currently Amended) A variable optical delay line with a large continuous tuning range comprising:

an ~~incremental~~ discretely variable optical delay line for receiving an optical ~~signal~~ signal, the ~~incremental~~ discretely variable optical delay line comprising a plurality of switchable binary paths configured to provide signal delay paths selected from a sequence of ~~incrementally~~ discretely differing delays; and

serially ~~optical~~ optically coupled with the ~~incremental~~ discretely variable delay line, a continuously variable optical delay line for receiving the optical signal to provide a ~~continuous~~ continuously variable delay from a range of delays substantially encompassing a delay increment in the ~~incremental~~ discretely variable delay line.

2. (Currently Amended) The variable optical delay line of claim 1 wherein the ~~incremental~~ discretely variable optical delay line is configured to provide a sequence of delays that differ by a delay increment T and the continuously variable optical delay line provides a delay in the continuous range (0,T).

3. (Currently Amended) The variable optical delay line of claim 1 wherein the ~~incremental~~ discretely variable optical delay line comprises a plurality of switchable binary fixed delays in which one delay is substantially 0 and the other delay is substantially (2n+1) T where T is the delay increment and n is an integer ≥ 0.

4. (Currently Amended) The variable optical delay line of claim 3 wherein the ~~incremental~~ discretely variable optical delay line comprises a switchable binary fixed delay of (0,T) serially connected to a switchable binary delay of (0, 2T), where T is the delay element.

5. (Currently Amended) The variable optical delay line of claim 1 wherein the continuously variable optical delay line comprises a switchable binary delay in which one delay is substantially zero and the other delay is a ~~continuous~~ continuously variable delay in the range (0,T) where T is the delay increment.

6. (Currently Amended) The variable optical delay line of claim 1 wherein the continuously variable optical delay line comprises a switchable binary delay line in which one delay is a ~~continuous~~ continuously variable delay in the range (0,T), and the other delay is a ~~continuous~~ continuously variable delay in the range (T, 2T), where T is the delay increment.

7. (Currently Amended) The variable optical delay line of claim 1 wherein the continuously variable optical delay line comprises an all pass filter.